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Date: 1/12/2006 12:32:00 PM

Subject: Grassy Trail Dam- Monitoring December 2005

During December both seismic accelerometers were up and running after being re-calibrated and moved in November 2005. The unit (BE96090) which was originally on the dam was move to a new location on the hillside, while the unit (BE9689) from the hillside in now located on the dam. During the month of December, 8 natural/MIS events were recorded on the hillside and 1 event on the dam. The highest MIS acceleration recorded was on the hillside, with an acceleration of 0.0232g. Within the general area 2 earthquakes were reported by the University of Utah Seismograph Stations (UUSS) with magnitudes of 1.0 and 1.7. Neither of these events were recorded by our instruments.

Slope movement inclinometers were read on 12/30/05. These inclinometers do not show detectable movement from the baseline readings taken on 12/9/05.

Piezometer readings taken on 12/30/05 are consistent with the baseline readings taken on 12/9/05. The included chart shows readings taken since 8/30/05. It should be noted from the chart that the old observation well "OB-1" continues to show somewhat erratic movement, just as it has in the past. Erratic movement on this well is not a concern.

The PDF attachments below includes charts and tables showing piezometer, inclinometer and accelerometer readings take on 12/30/05.

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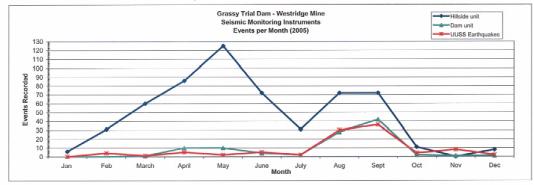
Grassy Trail Dam, Carbon County, Utah * New Locations, Hillside unit #9690 Dam #9689

Event Report: Event List - c:\blast\event\grassy~1.05\1230~1.05

Type	Serial No.	Date/Time	Tran Peak	Vert Peak	Long Peak	PVS1 (mm/s)	Trigger	Tran Accel	Vert Accel	Long Accel	Description	Post Event Note first line
			(mm/s)	(mm/s)	(mm/s)			(g)	(g)	(g)		
LOG	BE9689	Dec 6 /05 16:21:07	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
LOG	BE9690	Dec 6 /05 17:08:43	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
W	BE9690	Dec 6 /05 17:09:05	0.159	1.17	0.619	1.31	Vert	0.0166	0.101	0.0497	Instantel Inc.	man made
LOG	BE9690	Dec 6 /05 17:10:03	***	***	***	***	***	***	***	***	Keyboard Stop	No events recorded. (Keyboard Exit)
LOG	BE9690	Dec 6 /05 17:10:21	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
W	BE9689	Dec 9 /05 16:43:39	0.651	0.968	0.508	1.15	Tran	0.119	0.0895	0.0597	_	man made
W	BE9690	Dec 11 /05 15:55:36	0.937	0.365	0.365	0.951	Tran	0.0116	0.00829	0.00663	Instantel Inc.	man made
W	BE9690	Dec 11 /05 18:51:53	0.873	0.460	0.349	0.887	Tran	0.0116	0.00663	0.00663	Instantel Inc.	
W	BE9690	Dec 16 /05 12:00:56	0.651	0.317	0.270	0.655	Tran	0.00829	0.00663	0.00663	Instantel Inc.	
W	BE9690	Dec 20 /05 02:27:03	0.730	0.413	0.397	0.761	Tran	0.00829	0.00663	0.00663	Instantel Inc.	
W	BE9690	Dec 20 /05 12:05:03	0.714	0.317	0.286	0.715	Tran	0.00829	0.00663	0.00663	Instantel Inc.	
W	BE9690	Dec 21 /05 09:16:51	1.13	0.714	0.540	1.13	Tran	0.0133	0.00829	0.00829	Instantel Inc.	
W	BE9690	Dec 21 /05 17:56:48	0.714	0.365	0.333	0.764	Tran	0.00829	0.00663	0.00663	Instantel Inc.	
W	BE9690	Dec 23 /05 10:59:41	1.03	0.603	0.540	1.05	Tran	0.00994	0.00829	0.00663	Instantel Inc.	
W	BE9690	Dec 29 /05 17:52:37	2.44	0.825	1.21	2.49	Vert	0.0232	0.00994	0.00829	Instantel Inc.	Event has highest PGA recorded for Dec at 0.0232g
LOG	BE9690	Dec 29 /05 17:52:44	***	***	***	***	***	***	***	***	Stop Monitoring	Event recorded. (Keyboard Exit)
W	BE9689	Dec 29 /05 17:52:45	1.56	1.19	0.635	1.60	Vert	0.0116	0.00994	0.00829		
W	BE9689	Dec 30 /05 11:49:45	0.476	0.889	0.238	0.903	Vert	0.0613	0.143	0.0414		Man made
LOG	BE9689	Dec 30 /05 11:52:02	***	***	***	***	***	***	***	***	Keyboard Stop	No events recorded. (Keyboard Exit)
LOG	BE9690	Dec 30 /05 14:09:39	***	***	***	***	***	***	***	***	Start Monitoring	Event recorded. (Keyboard Exit)
W	BE9690	Dec 30 /05 14:09:39	1.73	***	2.43	***	Vert	0.141	3.30	0.199	Instantel Inc.	Man made
LOG	BE9690	Dec 30 /05 14:09:52	***	***	***	***	***	***	***	***	Stop Monitoring	Event recorded. (Keyboard Exit)

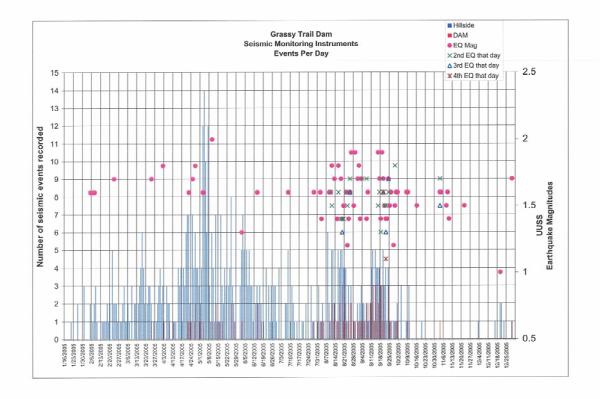
Printed: January 12, 2006 (V 4.37 - 4.37)

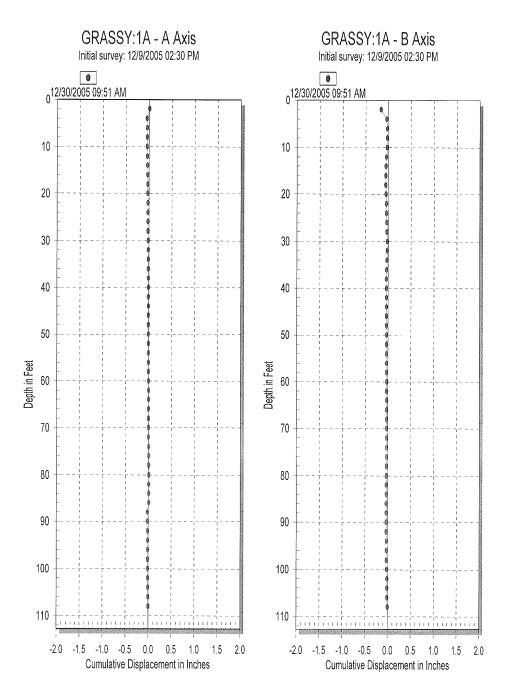
Page 1



	EVENTS RECORDED per MONTH									
	Hillside unit	Dam unit	UUSS Earthquakes							
Jan	6	na	0							
Feb	31	na	4							
March	60	1	1							
April	86	10	5							
May	125	10	2							
June	72	4	5							
July	31	2	2							
Aug	72	28	30							
Sept	72	42	36							
Oct	11	2	4							
Nov		1	8							
Dec	8	1	2							

^{*} Instruments being moved and recalibrated

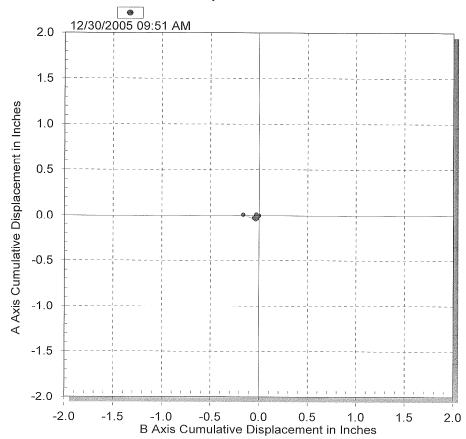


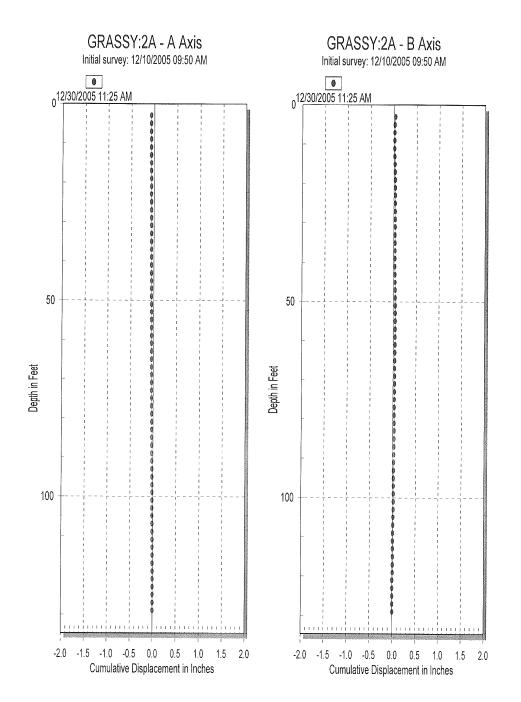


GRASSY:1A Page 5 12/30/2005 9:51:45 AM

GRASSY:1A - A Axis vs B Axis

Initial survey: 12/9/2005 02:30 PM

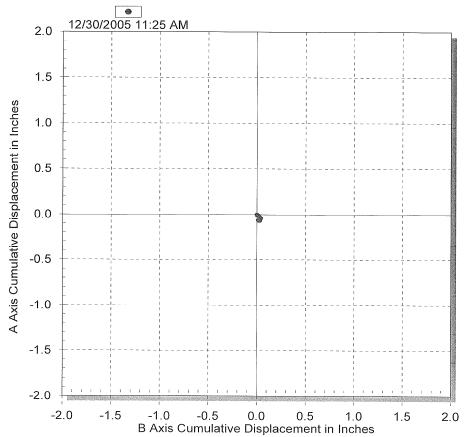


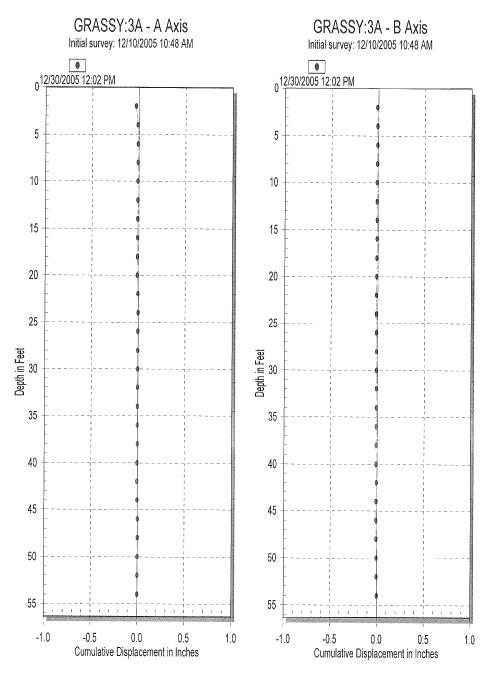


GRASSY:2A Page 5 12/30/2005 11:25:52 AM

GRASSY:2A - A Axis vs B Axis

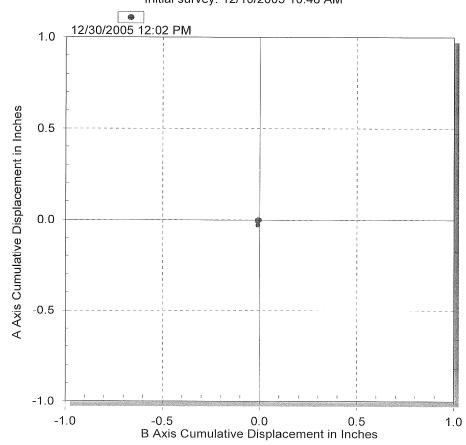
Initial survey: 12/10/2005 09:50 AM

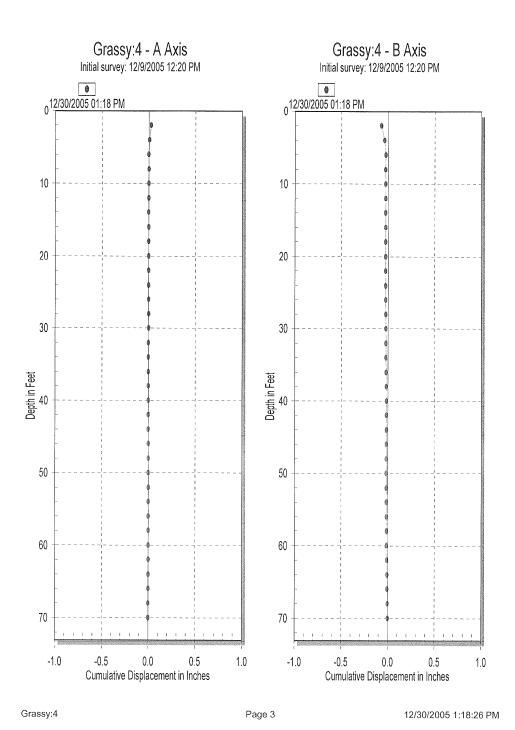




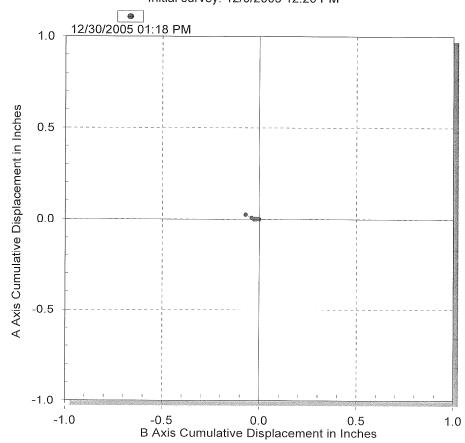
GRASSY:3A Page 3 12/30/2005 12:02:51 PM

GRASSY:3A - A Axis vs B Axis Initial survey: 12/10/2005 10:48 AM





Grassy:4 - A Axis vs B Axis Initial survey: 12/9/2005 12:20 PM



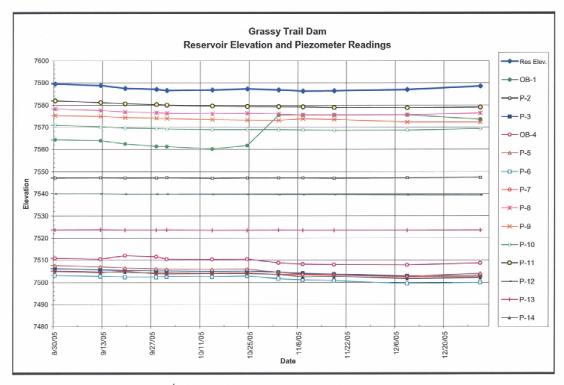




Figure Reservoir Elevation and Piezometer Readings August 30, 2004 to December 30, 2005

Grassy Trail Dam and Reservoir

			GRAS	SSY TR	AIL DA	M PIEZ	ZOMET	ER & C	BSER	OITAV	WELL	READ	INGS			
TAKE READINGS AT RIM ELEV.			05-2		79-4 98-3		05-4		79-3	05-3A	05-3		98-2	98-4	98-6	
D C+ El (B) 3000 0			5+62		5+15	4+14 PIEZ.		~4+14 PIEZ.		3+63	2+77	2+71		DIET	DIET	DIET
Dam Crest Elev. (ft) 7600.0 Spillway Elev. (ft) 7692.5		PIEZ.	PIEZ.	0.W.					O.W.	PIEZ	PIEZ	PIEZ	PIEZ	PIEZ	PIEZ 7	
				8 9 7601.5		2 3 7601.7		13 7558.9	14 7558.9	4 7601.7	10 7601.8	11 7601.7	12 7601.7	5 7528.8	6 7512.0	7519.5
Rim Elev. (ft) Tip Elev. (ft) (actual)		7554.5	7535.1	7601.8 7491.8	7525.4	7491.0	7521.0	7499.5	7491.7	7550.8	7572.0	7529.5	7501.5	7479.5	7493.0	
		neter Location:	CREST	CREST	CREST	CREST	CREST	D.S. SLOPE	D.S. SLOPE	CREST	CREST	CREST	CREST	TOE	TOE	TOE
			ENBANK.	FOUND.	EMBANKFOUND	EMBANK.	FOUND.	EMBANK	FOUND.	EMBANKFOUND	EMBANK.	EMBANK.	FOUND.	FOUND.	FOUND.	FOUND.
Date	Initials	Reservoir Elevation	45.75° (47°)	65' (66.4')	110"	76.2' (76.3')	110.7	36.5'	58.8° (59.4°)	110'	49.5° (51°)	28.5'	84.0° (72.2')	27.3	32.5"	26.5'
8/30/05	LW	-36"	23.2	26.2	37.4	54.5	95.6		53.8	90.9		19.6	61.7	21.3	9.0	14.6
	LW	-44"	23.9	26.6	37.4	54.4	96.1	35.1	54.3		31.5	20.4	61.7	21.9	9.4	15.3
9/12/05																
9/19/05	DC	-59"	24.6	27.1	39.3	54.5	96.4	35.3	54.5		32.1	21.0	61.8	22.4	9.7	14.5
9/28/05	LW	-65"	24.9	27.4	40.4	54.5	96.6		54.8		-	21.3	61.8	22.8	9.7	15.
10/7/05	LW	-72"	25.2	27.6	40.5	54.4	96.6	35.2	54.8			21.6	61.8	23.0	9.5	15.8
10/14/05		-69"	25.4	28.1	41.6	54.6	96.8	35.4	54.9		32.8	22.0	61.9	23.1	9.6	15.7
10/24/05	WD	-63"	25.2	28.3	40.0	54.5	96.7	35.4	54.8	91.3	32.8	22.2	61.8	22.9	9.3	15.7
11/2/05	WD	-68"	25.5	28.4	26.2	54.5	97.2	35.3	55.4	93.0	32.8	22.3	62.0	24.4	10.4	16.0
11/7/05	LW	-75*	26.0	27.7	26.7	54.5	97.7	35.4	56.6	93.6	33.0	22.4	62.0	25.2	10.8	16.2
11/18/05	WD	-73.5"	26.0	28.0	26.1	54.6	98.1	35.4	56.4	93.8	33.2	22.7	62.0	25.7	11.2	16.4
12/9/05	MKS	-66.5" ice	25.9	29.2	26.1	54.5	98.9	35.4	57.2		33.1	22.8	62.2	26.3	12.5	17.1
12/30/05	MKS	-48" ice	25.1	29.2	28.1	54.3	98.7	35.3	56.9	93.1	32.4	22.5	62.3	24.9	12.0	17.1
											-					
\neg																